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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andreas Finke

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EXAMINER

STRIMBU, GREGORY J

ART UNIT

PAPER NUMBER

3634

MAIL DATE

DELIVERY MODE

01/06/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,494	Applicant(s) FINKE, ANDREAS	
	Examiner Gregory J. Strimbu	Art Unit 3634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10, 14-19 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 14-19 and 23-28 is/are rejected.
- 7) ☐ Claim(s) 29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

The drawing correction filed June 27, 2007 has been approved.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 14-19 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabout (US 5712516) in view of Karita (US 4876765) and Tucker (US 3105272). Kabout discloses a linear drive arrangement for a sliding door, the arrangement comprising:

a guide track 11;

a stator arrangement 15 including coils 18 is fixed with respect to said guide track 11;

a guide carriage (not numbered, but shown attached to the door leaf 1 in figure 2) to which a door leaf 1 of the sliding door is fixed, the guide carriage and the door leaf being movable parallel to the guide track, the guide carriage comprising:

a front end and a rear end,

a pair of opposed sides extending between the front end and the rear end,

a supporting roller 12;

a plurality of permanent magnets 10 fixed to said guide carriage, wherein said permanent magnets and said coils form a holder so that the guide carriage, with the fixed door leaf, is suspended at least partially by a magnetic force between the permanent magnets and the stator arrangement, and wherein the same permanent magnets and coils form a linear drive for the door leaf so that the guide carriage can be driven along said guide track by said magnetic force.

Kabout is silent concerning a supporting roller which supports the guide carriage on the guide track.

However, Karita discloses a linear drive arrangement for a sliding door comprising supporting two supporting rollers 121 supported at least at times on said guide track, the rollers support a guide carriage 114 on a guide track 105 when said carriage is not fully suspended by said magnetic forces; wherein the rollers 121 are disposed at front and rear ends of the of the guide carriage as shown in figure 4; wherein two supporting rollers 121 are arranged on the same side of the guide carriage as shown in figure 5; wherein at least one of the supporting rollers rolls on the guide track as movement of the guide carriage begins and ends.

It would have been obvious to one of ordinary skill in the art to provide Kabout with a roller arrangement, as taught by Karita, to enable a user to move the door when the linear drive does not have power and/or to reduce the generation of dust (see column 4, lines 52-54).

Additionally, Tucker discloses a door system comprising a plurality of rollers 16, each said roller is journaled on a bearing shaft 36 which is received through a bore hole

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in a guide carriage 32, wherein each said bearing shaft 36 has a first end (not numbered, but shown in figures 3 and 5) on which a respective said roller is journaled eccentrically with respect to the axis of the shaft, wherein each said bearing shaft 36 has a threaded second end (not numbered, but shown in figures 3 and 5) for receiving a fastening nut 37, wherein each said roller is detachable from the bearing shaft.

It would have been obvious to one of ordinary skill in the art to provide Kabout with an adjustment means, as taught by Tucker, to increase the ease with which the position of the door can be adjusted relative to the surrounding frame.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kabout in view of Karita. Kabout discloses a linear drive arrangement for a door leaf 1 of a sliding door, the arrangement comprising:

a guide track 11; a stator arrangement 15 including coils 18 fixed with respect to said guide track;

a guide carriage (not numbered, but shown at the top of the door leaf 1 in figure 2) to which the door leaf is fixed, the guide carriage being moveable parallel to the guide track;

a plurality of magnets 10 fixed to said guide carriage, wherein said permanent magnets and said coils form a holder so that the guide carriage, with the fixed door leaf, is suspended at least partially by a magnetic force between said permanent magnets and said stator arrangement, and wherein the same magnets and coils form a linear

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drive for the door leaf so that the guide carriage can be driven along said guide track by said magnetic force and

a support roller 12. Kabout is silent concerning a support roller supporting the guide carriage on said guide track when said carriage is not fully suspended by said magnetic forces.

However, Karita discloses a linear drive arrangement for a door leaf comprising at least one supporting roller 121 supporting a guide carriage 114 on a guide track 105 when said carriage is not fully suspended by said magnetic forces.

It would have been obvious to one of ordinary skill in the art to provide Kabout with a roller arrangement, as taught by Karita, to enable a user to move the door when the linear drive does not have power.

Allowable Subject Matter

Claims 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, absent applicant's own disclosure, fails to teach the entire combination of elements set forth in the claimed invention. Specifically, the prior art of record fails to teach the coils are arranged in two rows and the magnets are positioned between the two rows of the coils. See lines 1-2 of claims 29 and 30.

Although references such as Karita (US 4876765) disclose the use of coils arranged in

two rows in figure 14 wherein the linear motor lifts and drives the door 101, they fail to disclose the use of permanent magnets and the use of rollers.

Response to Arguments

Applicant's arguments filed October 23, 2009 have been fully considered but they are not persuasive.

The applicant argues that the combination of the teachings of Kabout and Karita fails to anticipate the applicant's claimed invention because the combination requires substantial reconstruction of the elements of Kabout's door drive which renders Kabout inoperable for its intended purpose. The examiner respectfully disagrees. As shown in figures 4 and 5 of Karita, the hangers 111, 112 and 113 extend beyond the sides of the guide track 105 so that the rollers 121 can roll on flanges 108 and 109 of the guide track 105. Thus, one of ordinary skill in the art could simply extend the sides of the guide track 11 of Kabout and provide the guide carriage of Kabout with the hangers and rollers of Karita to obtain the applicant's claimed invention. It should be noted that the extended portions of the guide track 11 of Kabout would not be disposed in resin so that the rollers can roll on the extended portions. Since the stator element 15 would still be encased in the resin 20 and profile 19, the combination of the teachings of Kabout and Karita would not destroy the teachings of Kabout. The profile containing the magnets 10 of Kabout does not need to be widened and none of the resin 20 or the profile 10 need be removed in the combination of the teachings of Kabout and Karita.

The applicant next argues that the motivation for combining the teachings of Kabout and Karita contradicts the explicit teachings of Karita. The examiner respectfully disagrees. There is nothing in the disclosure of Karita that states that the rollers 121 and their attendant supports 111, 112, 113 cannot support the weight of the door 101. The purpose of the permanent magnets 131 and 132 is to provide support for the majority of the weight of the door so that the rollers 121 create a minimum amount of dust. Thus, the purpose behind subjecting the rollers 121, 122 to a small load is to attenuate the generation of dust during normal operation of the door. Even if Karita taught that the rollers and supports could not support the weight of the door 101, one of ordinary skill in the art would realize that the invention of Kabout would greatly benefit from the addition of rollers to support the door 1 when power is not available for the linear drive/support apparatus. In the absence of such rollers, one would have to slide the door with the bottom thereof generating friction with the floor. Clearly such a situation would be a great disadvantage when faced with trying to open the door 1 in an emergency situation when power is not available to the linear drive/support. Clearly one with ordinary skill in the art would realize this deficiency and provide Kabout with the rollers as taught by Karita such that the rollers could support the weight of the door.

The applicant also argues that because Kabout already has a guide roller 12 one of ordinary skill in the art would not combine the teachings of Kabout and Karita. This is not persuasive because of the emergency support rational set forth above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Strimbu whose telephone number is 571-272-6836. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on 571-272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory J. Strimbu/
Primary Examiner, Art Unit 3634